



3713 J. Shepherd
Hull Royal Infirmary
Hull

Groot Brittannië

INPUTS 2013.1

Survey	INPUTS 2013.1		
Start date	January, 1 2013		
Supervisor	dr. C. Weykamp MCA Laboratory Streekziekenhuis Koningin Beatrix Winterswijk		
Subscriptions	93		
Result sets	91		

Scores	Your score	MAP	reported
Quantitative	30	36	



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INPUTS 2013.1

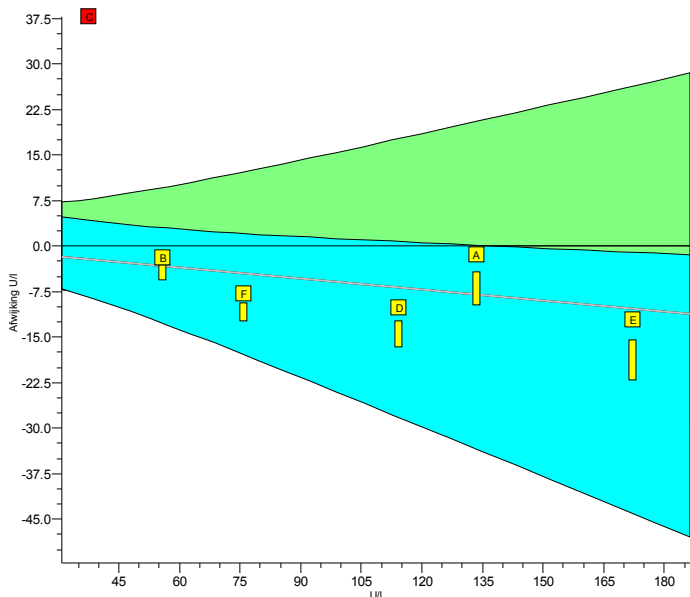
Analyte		Trueness				Precision		Performance			
		your mean	ref.	cons.	SDtI	your prec.	SDbl	this survey	PS	cumulative PSc	
ALAT	U/l	103.6	110.3	97.2	10.1	3.2	2.7		2		2
Alk. Phosphatase	U/l	204	188	173	15	4	2		2		2
Amylase	U/l	208	205	173	17	2	3		2		2
ASAT	U/l	73.4	76.4	69.5	6.8	0.9	1.6		2		2
Calcium	mmol/l	2.52	2.46	2.47	0.07	0.04	0.02		1		1
Chloride	mmol/l	100.0	100.0	100.8	1.8	1.1	0.9		2		2
CK	U/l	246	239	243	14	4	3		2		2
Creatinine	µmol/l	154.3	149.1	150.7	5.6	3.5	2.1		1		1
Gamma-GT	U/l	90.8	86.9	85.5	8.6	0.8	1.2		2		2
Glucose	mmol/l	14.36	13.93	14.19	0.44	0.11	0.18		2		2
LD	U/l	1055	526	882	321	23	16		0		0
Magnesium	mmol/l	1.26	1.22	1.23	0.04	0.01	0.02		2		2
Potassium	mmol/l	5.26	5.39	5.30	0.10	0.06	0.04		1		1
Sodium	mmol/l	141.8	144.0	142.7	1.7	0.9	0.9		2		2
Total Protein	g/l	67.4	66.8	66.0	1.8	0.5	0.7		2		2
Urate	mmol/l	0.382	0.376	0.374	0.015	0.002	0.004		2		2
Cholesterol	mmol/l	5.18	5.07	5.15	0.14	0.10	0.05		2		2
HDL-Cholesterol	mmol/l	1.19	1.14	1.13	0.03	0.03	0.02		1		1



Total : 30 30

INPUTS 2013.1

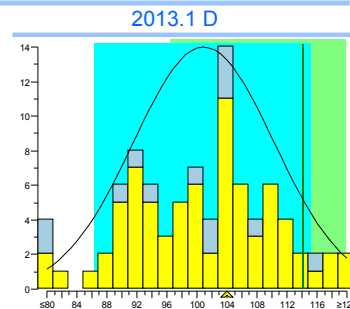
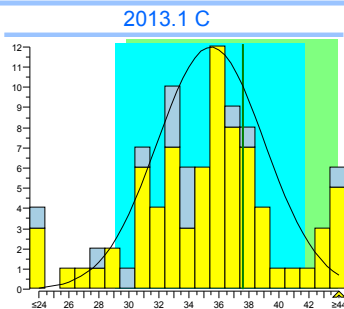
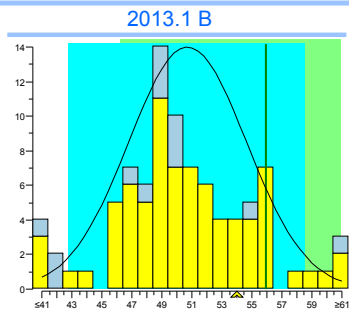
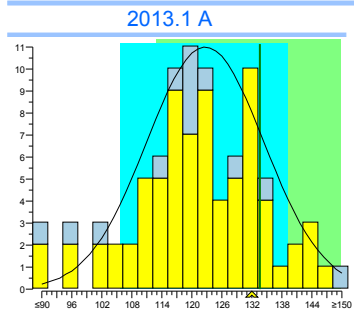
ALAT

units: U/I



	2013.1	cumulative
Trueness	-6.1%	-6.1%
Precision	3.3%	3.3%
Number	6	6
Outliers	1	1
Sigma-TE	4.7 2	4.7 2
Sigma-SA	3.4	3.4
Score pictogram		
Regression line	$0.0 + 0.940 \cdot x$	$0.0 + 0.940 \cdot x$

Consensus group IFCC traceerbaar
Method IFCC traceable

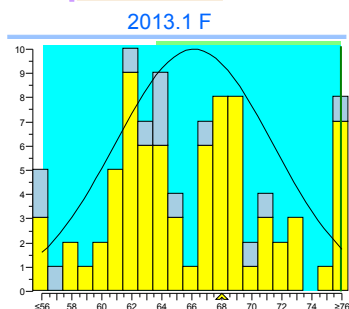
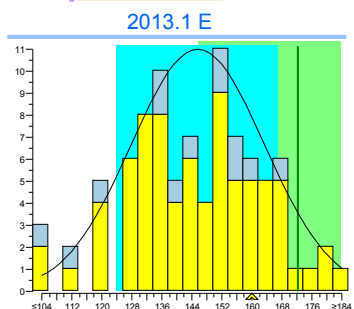


	cons.	meth.	ref.	lab
mean	122.7	122.7	133.5	132
SD	11.8	11.8		
n	75	75		
no	1	1		

	cons.	meth.	ref.	lab
mean	50.7	50.7	55.9	54
SD	3.9	3.9		
n	76	76		
no	3	3		

	cons.	meth.	exp.	lab
mean	35.5	35.5	37,6	139
SD	3.6	3.6		
n	76	76		
no	7	7		

	cons.	meth.	ref.	lab
mean	100.9	100.9	114.2	104
SD	9.4	9.4		
n	76	76		
no	3	3		



	cons.	meth.	ref.	lab
mean	146	146	172.2	160
SD	18	18		
n	77	77		
no	1	1		

	cons.	meth.	ref.	lab
mean	66.1	66.1	75.9	68
SD	5.3	5.3		
n	77	77		
no	3	3		

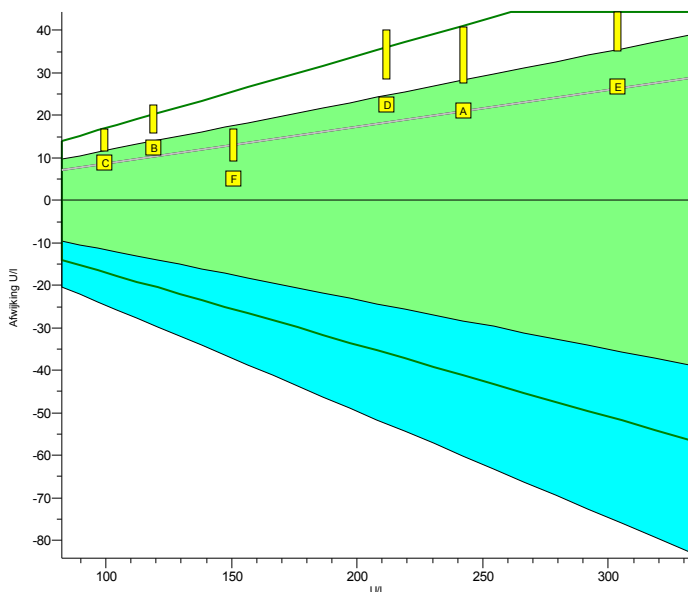
Legend



IFCC traceable IFCC non-traceable

INPUTS 2013.1

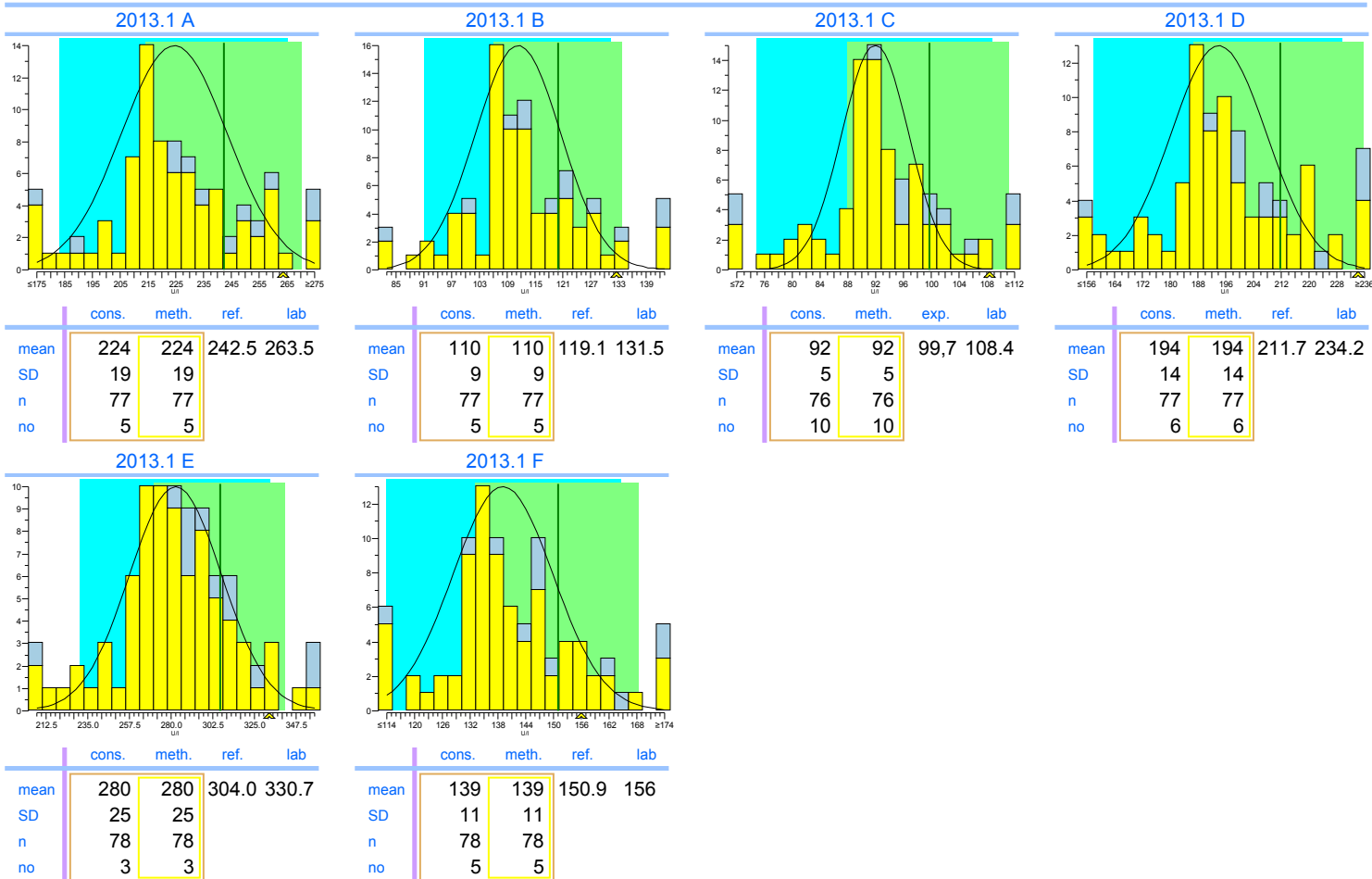
Alk. Phosphatase

units: U/l



	2013.1	cumulative
Trueness	+8.5%	+8.5%
Precision	2.5%	2.5%
Number	6	6
Outliers	0	0
Sigma-TE	2.4	2.4
Sigma-SA	5.0 2	5.0 2
Score pictogram		
Regression line	$0 + 1.087.x$	$0 + 1.087.x$

Consensus group	IFCC traceerbaar
Method	IFCC traceable



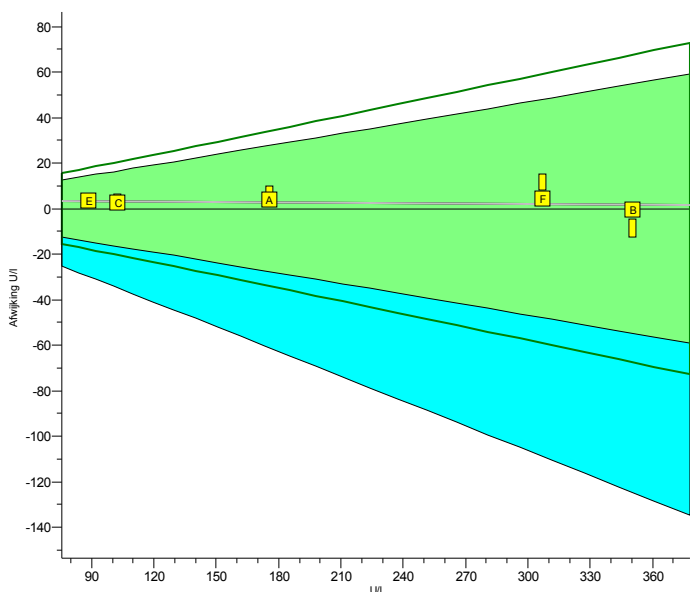
Legend



 IFCC traceable IFCC non-traceable

INPUTS 2013.1

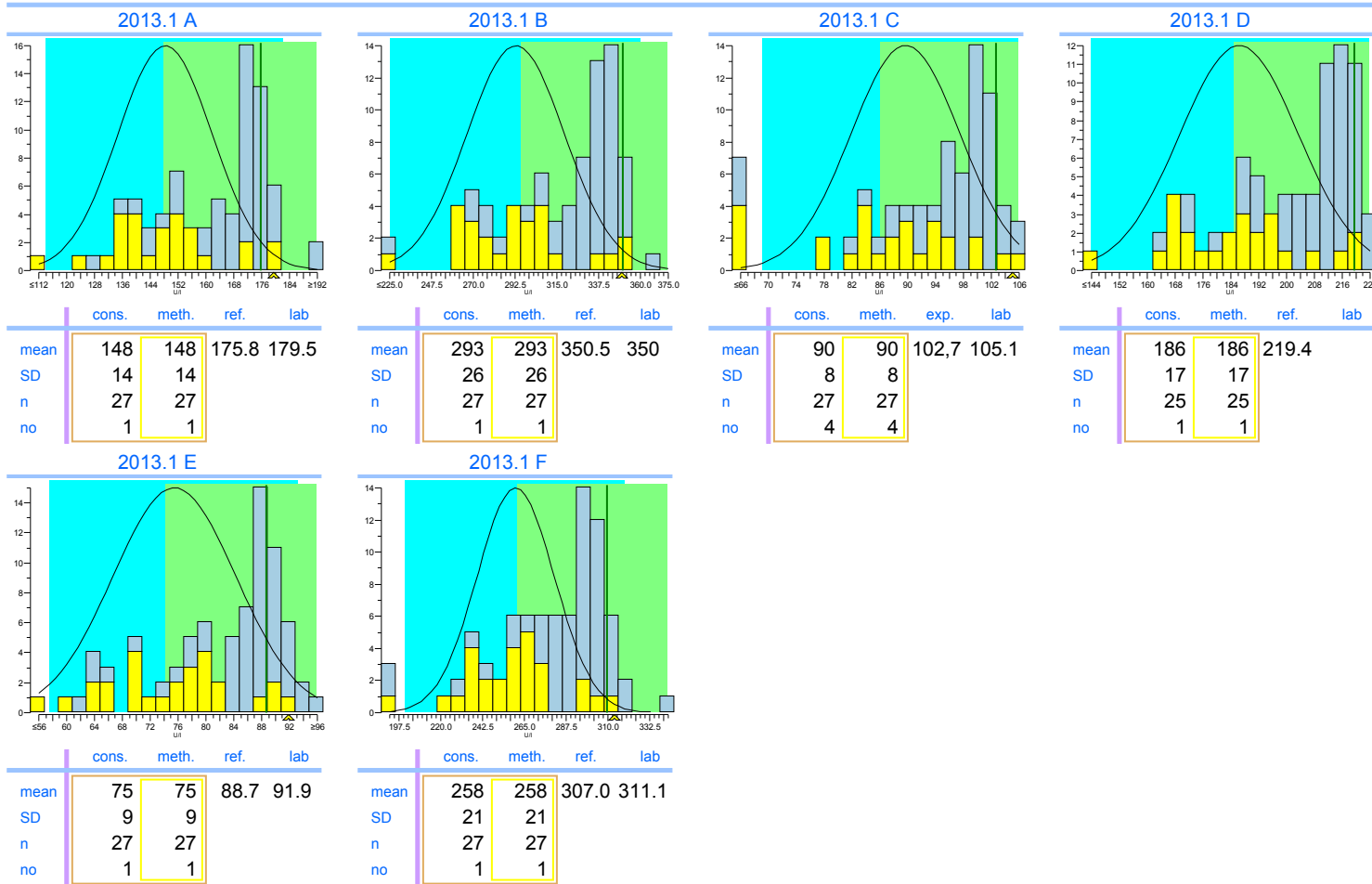
Amylase

units: U/l



	2013.1	cumulative
Trueness	+1.3%	+1.3%
Precision	1.1%	1.1%
Number	5	5
Outliers	0	0
Sigma-TE	6.0	6.0
Sigma-SA	6.0 2	6.0 2
Score pictogram		
Regression line	$4 + 0.993 \cdot x$	$4 + 0.993 \cdot x$

Consensus group	niet IFCC traceerbaar
Method	IFCC non-traceable



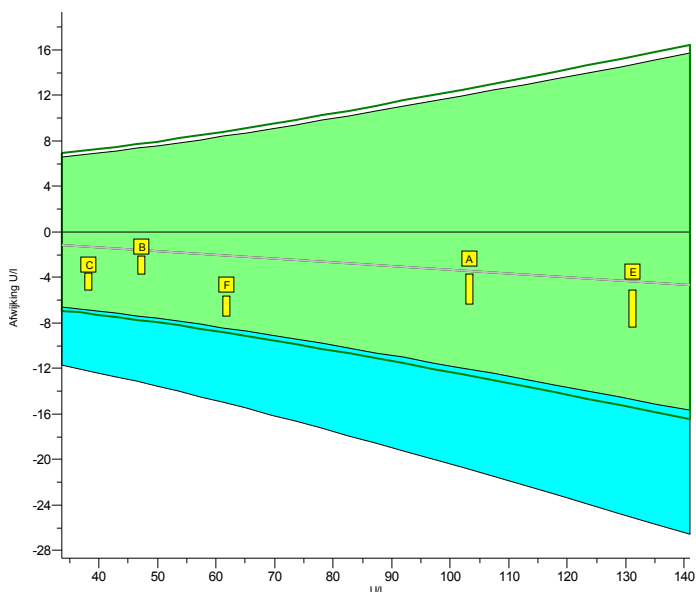
Legend



IFCC non-traceable IFCC traceable

INPUTS 2013.1

ASAT

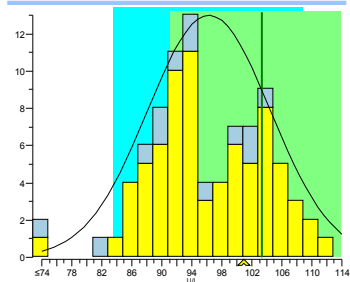
units: U/I



	2013.1	cumulative
Trueness	-3.9%	-3.9%
Precision	1.3%	1.3%
Number	5	5
Outliers	0	0
Sigma-TE	6.0	6.0
Sigma-SA	6.0	6.0
Score pictogram		
Regression line	$0.0 + 0.967 \cdot x$	$0.0 + 0.967 \cdot x$

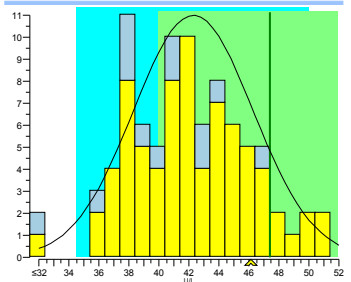
Consensus group	IFCC traceerbaar
Method	IFCC traceable

2013.1 A



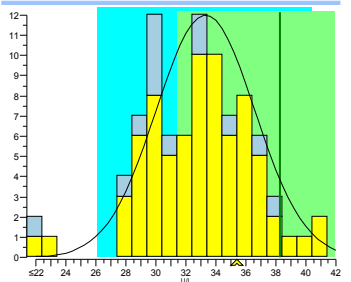
	cons.	meth.	ref.	lab
mean	96.3	96.3	103.3	100.9
SD	8.2	8.2		
n	75	75		
no	1	1		

2013.1 B



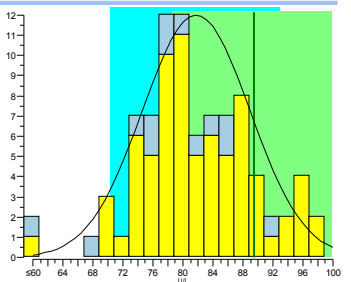
	cons.	meth.	ref.	lab
mean	42.3	42.3	47.4	46.1
SD	4.0	4.0		
n	75	75		
no	1	1		

2013.1 C



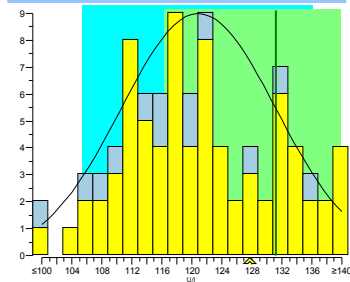
	cons.	meth.	exp.	lab
mean	33.3	33.3	38,3	35.4
SD	3.3	3.3		
n	75	75		
no	2	2		

2013.1 D



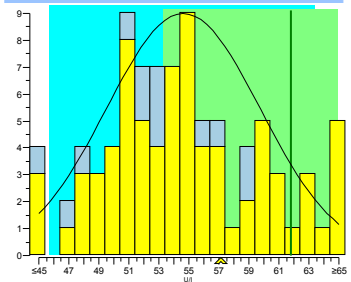
	cons.	meth.	ref.	lab
mean	81.8	81.8	89.4	
SD	7.2	7.2		
n	74	74		
no	1	1		

2013.1 E



	cons.	meth.	ref.	lab
mean	120.9	120.9	131.2	127.7
SD	10.3	10.3		
n	76	76		
no	1	1		

2013.1 F



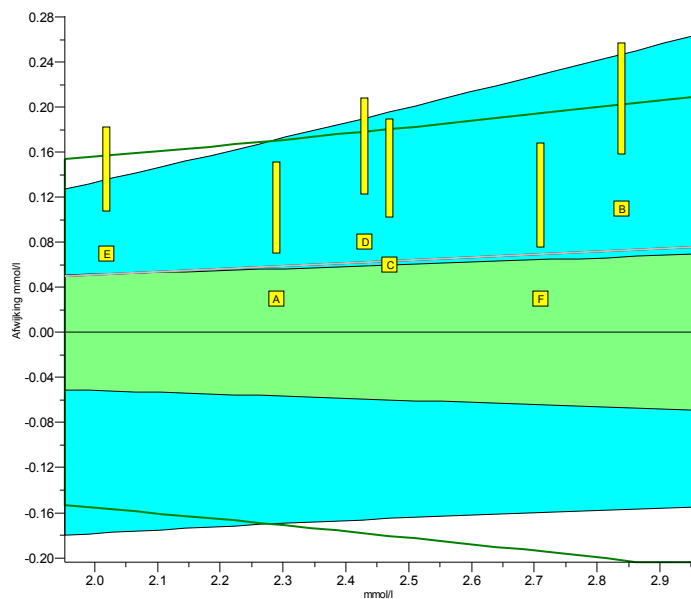
	cons.	meth.	ref.	lab
mean	54.6	54.6	61.8	57.1
SD	5.1	5.1		
n	76	76		
no	2	2		



Legend
 IFCC traceable
 IFCC non-traceable

INPUTS 2013.1

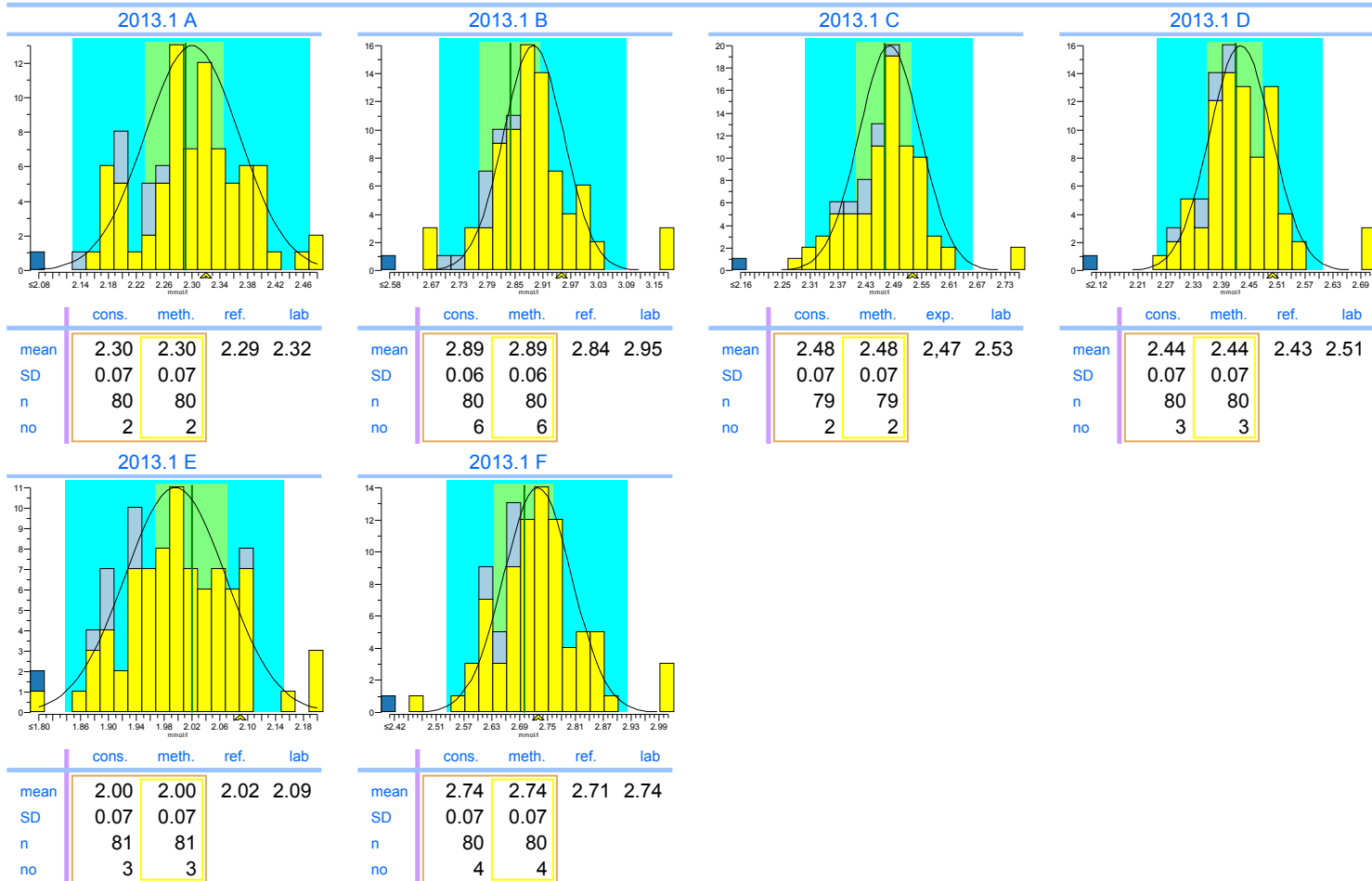
Calcium

units: mmol/l



	2013.1	cumulative
Trueness	+2.6%	+2.6%
Precision	1.5%	1.5%
Number	6	6
Outliers	0	0
Sigma-TE	0.7	0.7
Sigma-SA	4.2 1	4.2 1
Score pictogram		
Regression line	<u>0.00 + 1.026.x</u>	<u>0.00 + 1.026.x</u>

Consensus group	Colorimetrisch
Method	Colorimetric, automatic, discrete



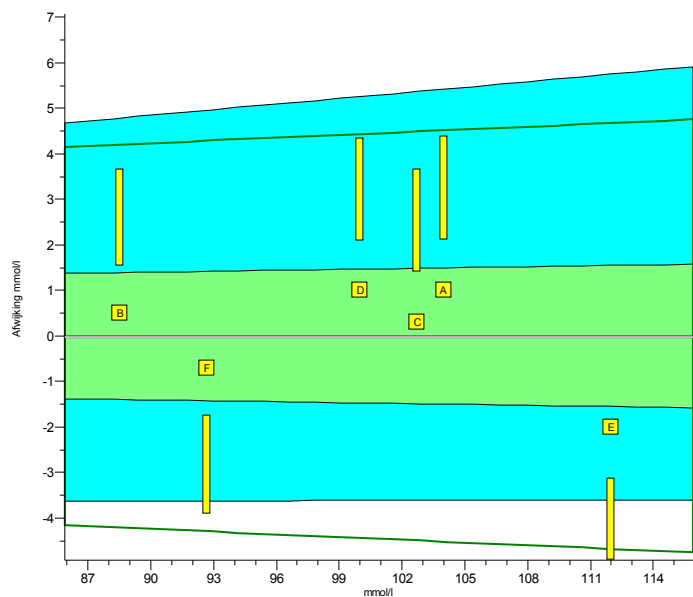
Legend



- Colorimetric, automatic, discrete
- ISE indirect (with predilution)
- Other methods

INPUTS 2013.1

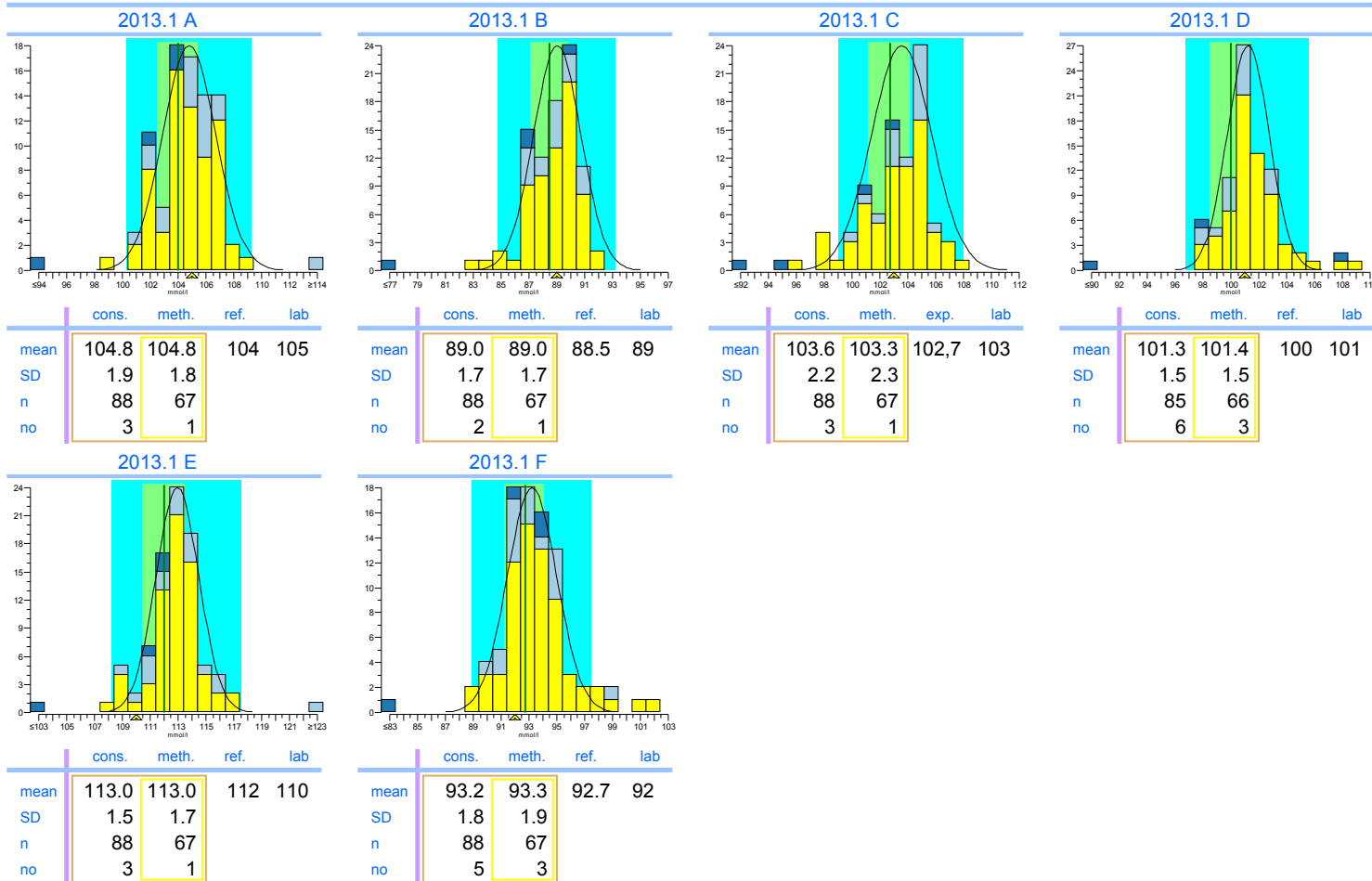
Chloride

units: mmol/l



	2013.1	cumulative
Trueness	+0.02%	+0.02%
Precision	1.1%	1.1%
Number	6	6
Outliers	0	0
Sigma-TE	1.4	1.4
Sigma-SA	4.7 2	4.7 2
Score pictogram		
Regression line	$0.0 + 1.000 \cdot x$	$0.0 + 1.000 \cdot x$

Consensus group ISE/Colorimetrie
Method ISE indirect (with predilution)



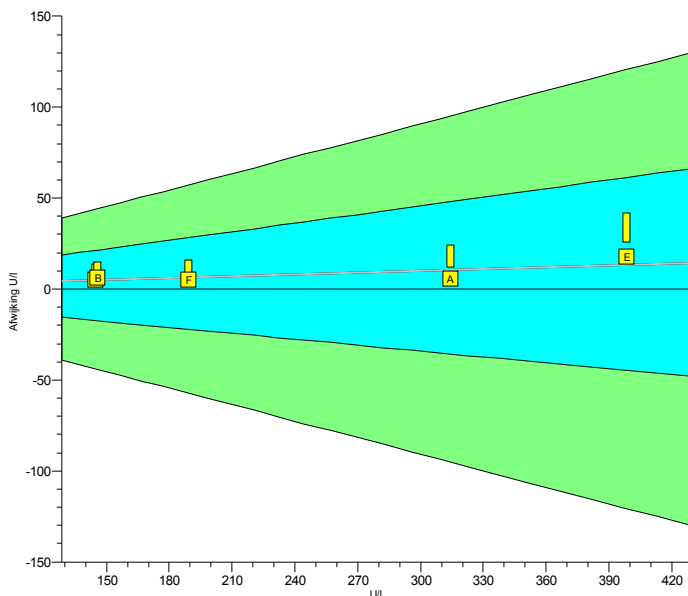
Legend



INPUTS 2013.1

CK

units: U/I



	2013.1	cumulative
Trueness	+3.3%	+3.3%
Precision	1.8%	1.8%
Number	5	5
Outliers	0	0
Sigma-TE	6.0 2	6.0 2
Sigma-SA	6.0	6.0
Score pictogram		
Regression line	$0 + 1.034 \cdot x$	$0 + 1.034 \cdot x$

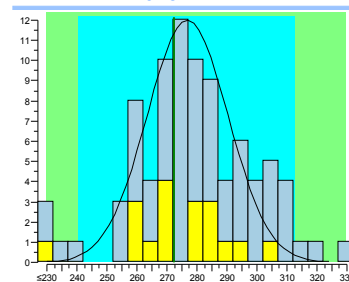
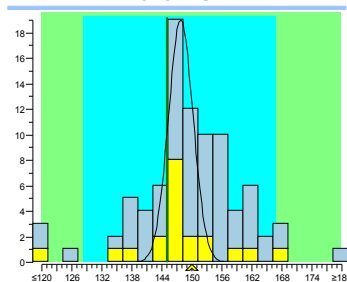
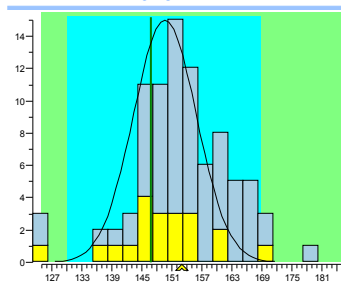
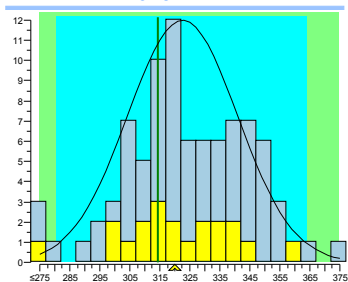
Consensus group niet IFCC traceerbaar
Method IFCC non-traceable

2013.1 A

2013.1 B

2013.1 C

2013.1 D



	cons.	meth.	ref.	lab
mean	323	323	314.3	320
SD	18	18		
n	20	20		
no	1	1		

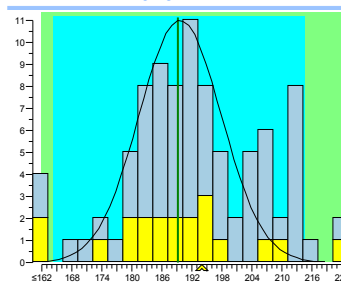
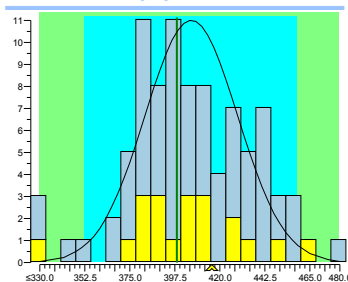
	cons.	meth.	ref.	lab
mean	149	149	145.8	152
SD	6	6		
n	20	20		
no	2	2		

	cons.	meth.	exp.	lab
mean	148	148	145	150
SD	2	2		
n	20	20		
no	6	6		

	cons.	meth.	ref.	lab
mean	277	277	272.3	
SD	13	13		
n	18	18		
no	1	1		

2013.1 E

2013.1 F



	cons.	meth.	ref.	lab
mean	406	406	398.4	416
SD	23	23		
n	20	20		
no	1	1		

	cons.	meth.	ref.	lab
mean	190	190	189.2	194
SD	8	8		
n	20	20		
no	3	3		

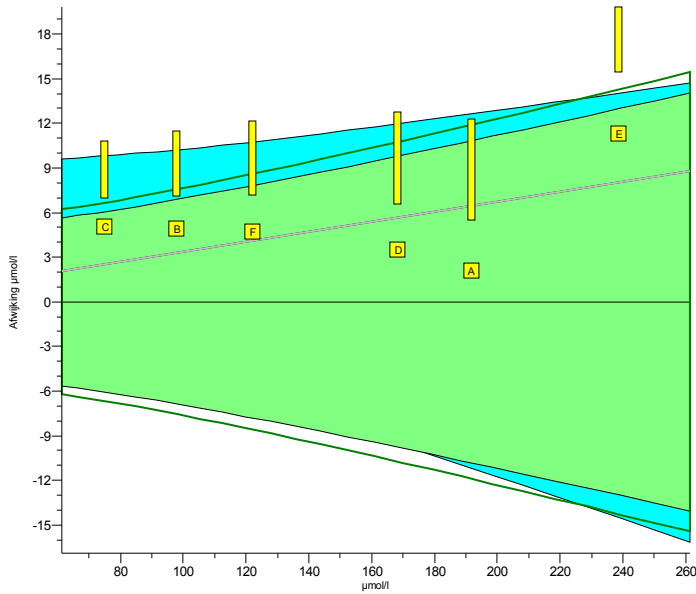
Legend

IFCC non-traceable IFCC traceable

INPUTS 2013.1

Creatinine

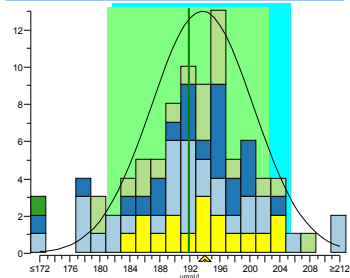
units: $\mu\text{mol/l}$



	2013.1	cumulative
Trueness	+3.5%	+3.5%
Precision	2.3%	2.3%
Number	6	6
Outliers	0	0
Sigma-TE	2.4	2.4
Sigma-SA	2.8	2.8
Score pictogram		
Regression line	$0.0 + 1.034.x$	$0.0 + 1.034.x$

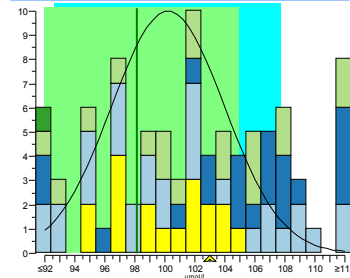
Consensus group: Enzymatische kreatinine
Method: Enzymatic, automatic

2013.1 A



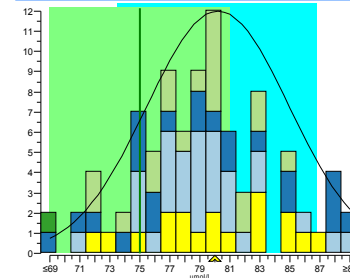
	cons.	meth.	ref.	lab
mean	193.7	193.7	191.9	194
SD	6.8	6.8		
n	17	17		
no	0	0		

2013.1 B



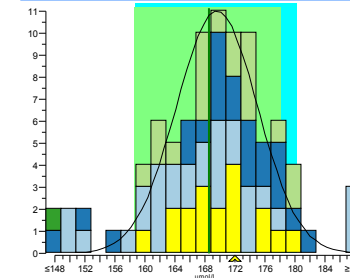
	cons.	meth.	ref.	lab
mean	100.2	100.2	98.11	103
SD	3.8	3.8		
n	18	18		
no	0	0		

2013.1 C



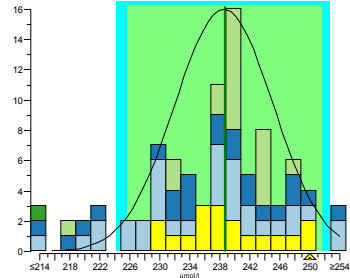
	cons.	meth.	exp.	lab
mean	80.2	80.2	75	80
SD	4.7	4.7		
n	18	18		
no	0	0		

2013.1 D



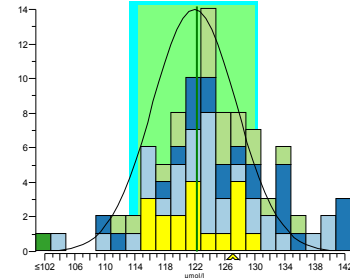
	cons.	meth.	ref.	lab
mean	169.6	169.6	168.5	172
SD	5.4	5.4		
n	18	18		
no	0	0		

2013.1 E



	cons.	meth.	ref.	lab
mean	238.5	238.5	238.7	250
SD	6.6	6.6		
n	18	18		
no	0	0		

2013.1 F



	cons.	meth.	ref.	lab
mean	121.9	121.9	122.3	127
SD	5.6	5.6		
n	18	18		
no	0	0		

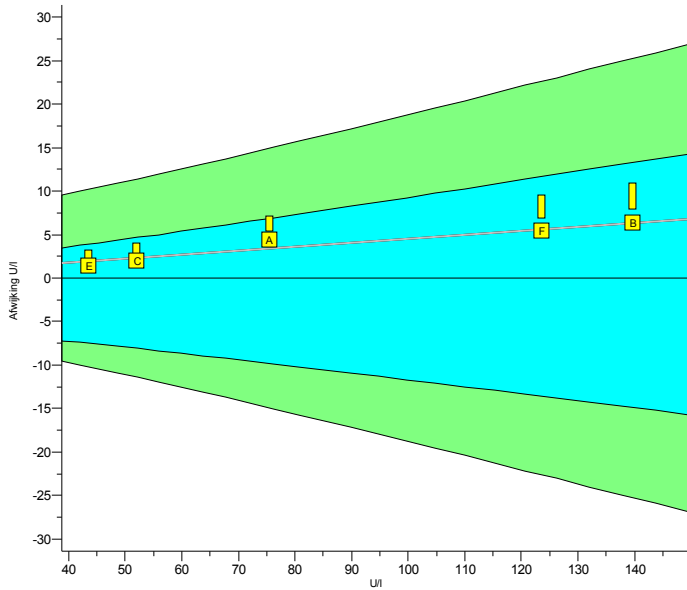
Legend

- Enzymatic, automatic
- Alk. Picrate, kinetic with compensation
- Alk. Picrate, kinetic
- Alk. Picrate, endpoint
- Other methods

INPUTS 2013.1

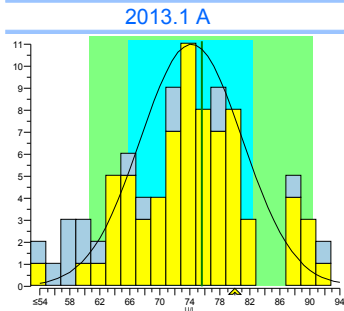
Gamma-GT

units: U/I

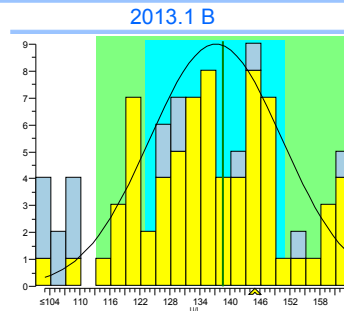


	2013.1	cumulative
Trueness	+4.5%	+4.5%
Precision	1.0%	1.0%
Number	5	5
Outliers	0	0
Sigma-TE	6.0 2	6.0 2
Sigma-SA	6.0	6.0
Score pictogram	 	
Regression line	<u>0.0 + 1.045.x</u>	<u>0.0 + 1.045.x</u>

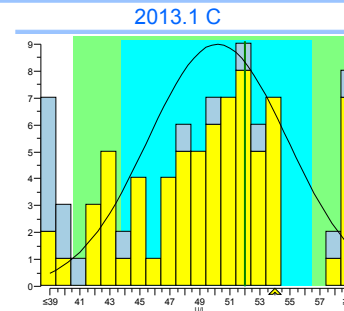
Consensus group IFCC traceerbaar
Method IFCC traceable



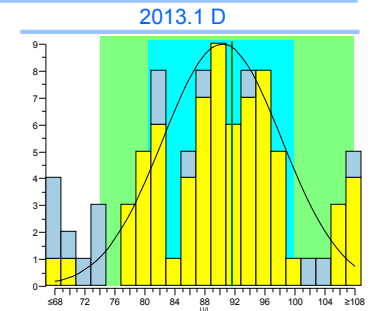
	cons.	meth.	ref.	lab
mean	74.2	74.2	75.6	80
SD	6.8	6.8		
n	72	72		
no	1	1		



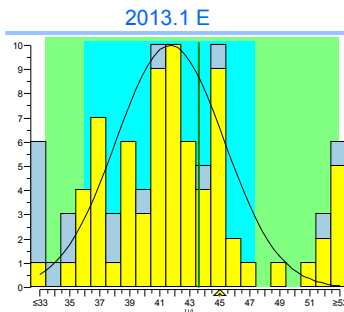
	cons.	meth.	ref.	lab
mean	138.2	138.2	139.7	146
SD	13.3	13.3		
n	72	72		
no	1	1		



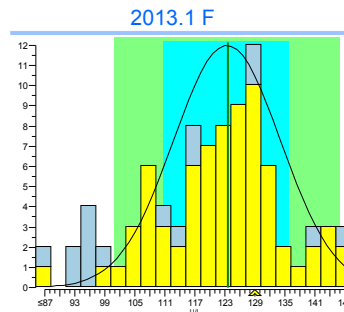
	cons.	meth.	exp.	lab
mean	50.2	50.2	52	54
SD	4.6	4.6		
n	72	72		
no	2	2		



	cons.	meth.	ref.	lab
mean	90.3	90.3	91.6	
SD	7.9	7.9		
n	71	71		
no	1	1		



	cons.	meth.	ref.	lab
mean	41.7	41.7	43.6	45
SD	3.6	3.6		
n	73	73		
no	6	6		



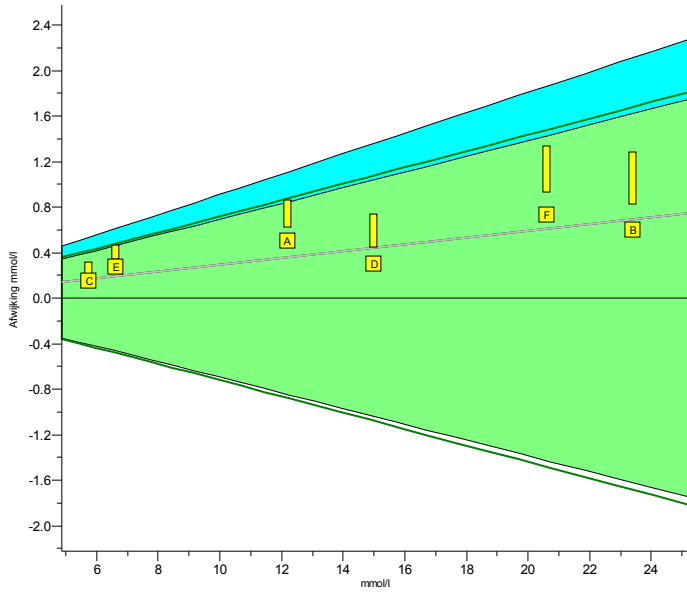
	cons.	meth.	ref.	lab
mean	123.4	123.4	123.6	129
SD	10.7	10.7		
n	73	73		
no	1	1		



Legend
 IFCC traceable
 IFCC non-traceable

INPUTS 2013.1

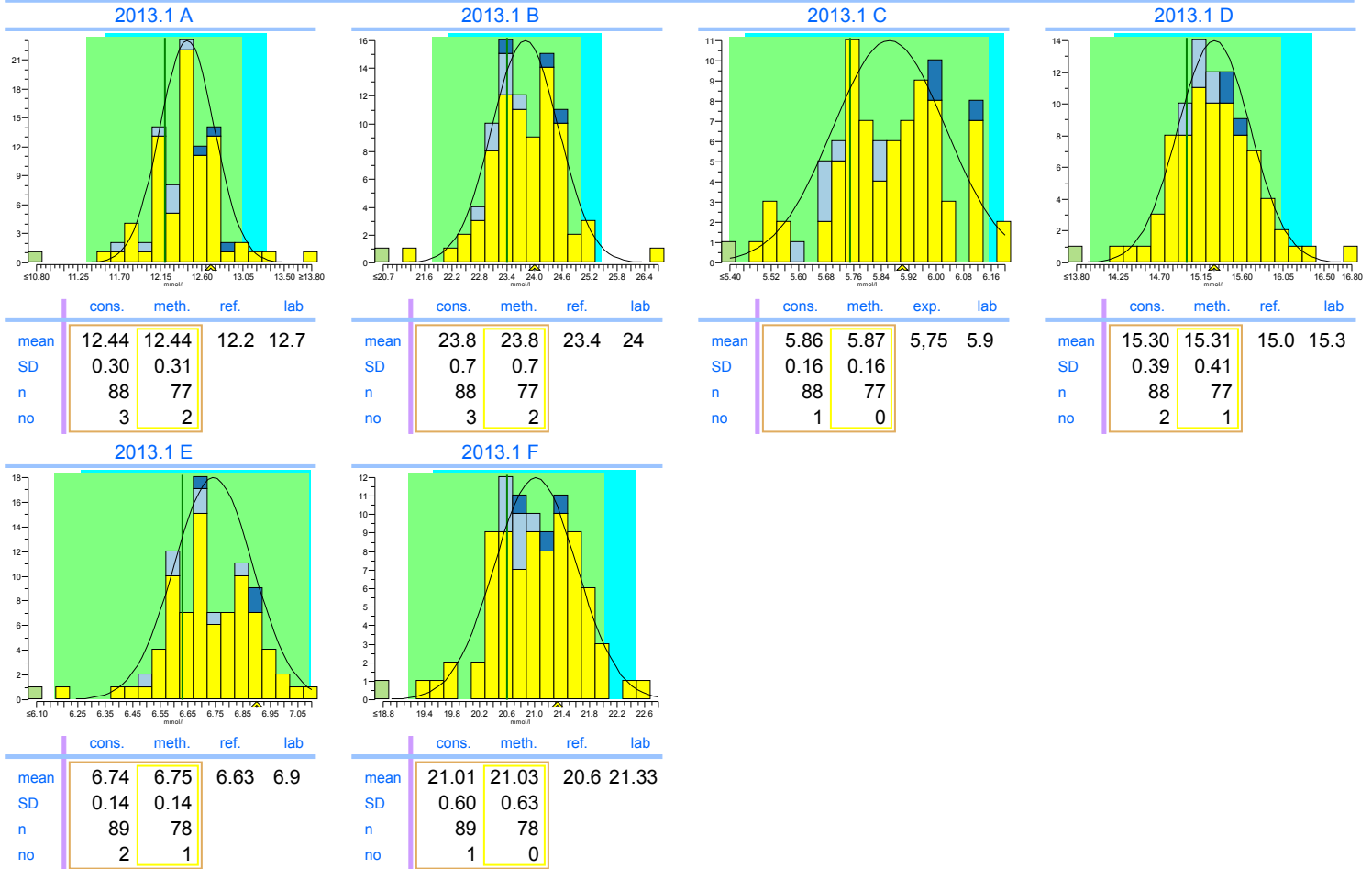
Glucose

units: mmol/l



	2013.1	cumulative
Trueness	+3.1%	+3.1%
Precision	0.78%	0.78%
Number	6	6
Outliers	0	0
Sigma-TE	5.7	5.7
Sigma-SA	6.0 2	6.0 2
Score pictogram		
Regression line	<u>0.00 + 1.030.x</u>	<u>0.00 + 1.030.x</u>

Consensus group Natte chemie
Method Hexokinase, automatic



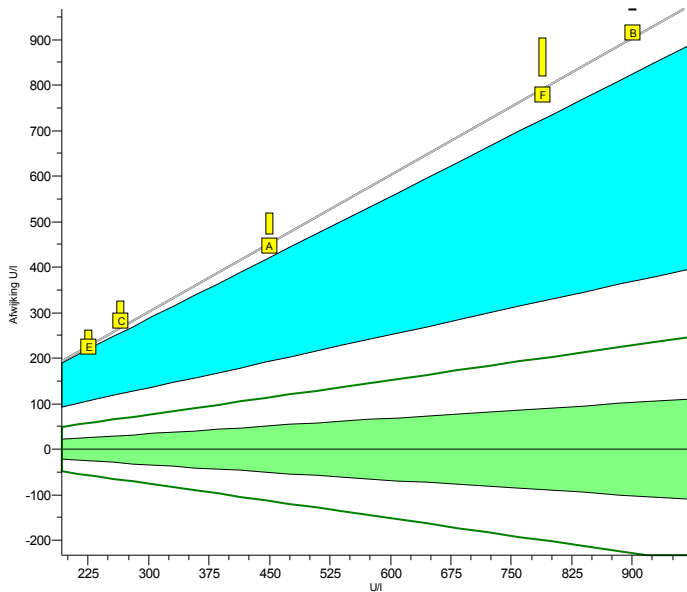
Legend

- Hexokinase, automatic
- Glucose-oxidase, amperometric, H2O2
- Glucose-oxidase/POD, automatic
- Other methods

INPUTs 2013.1

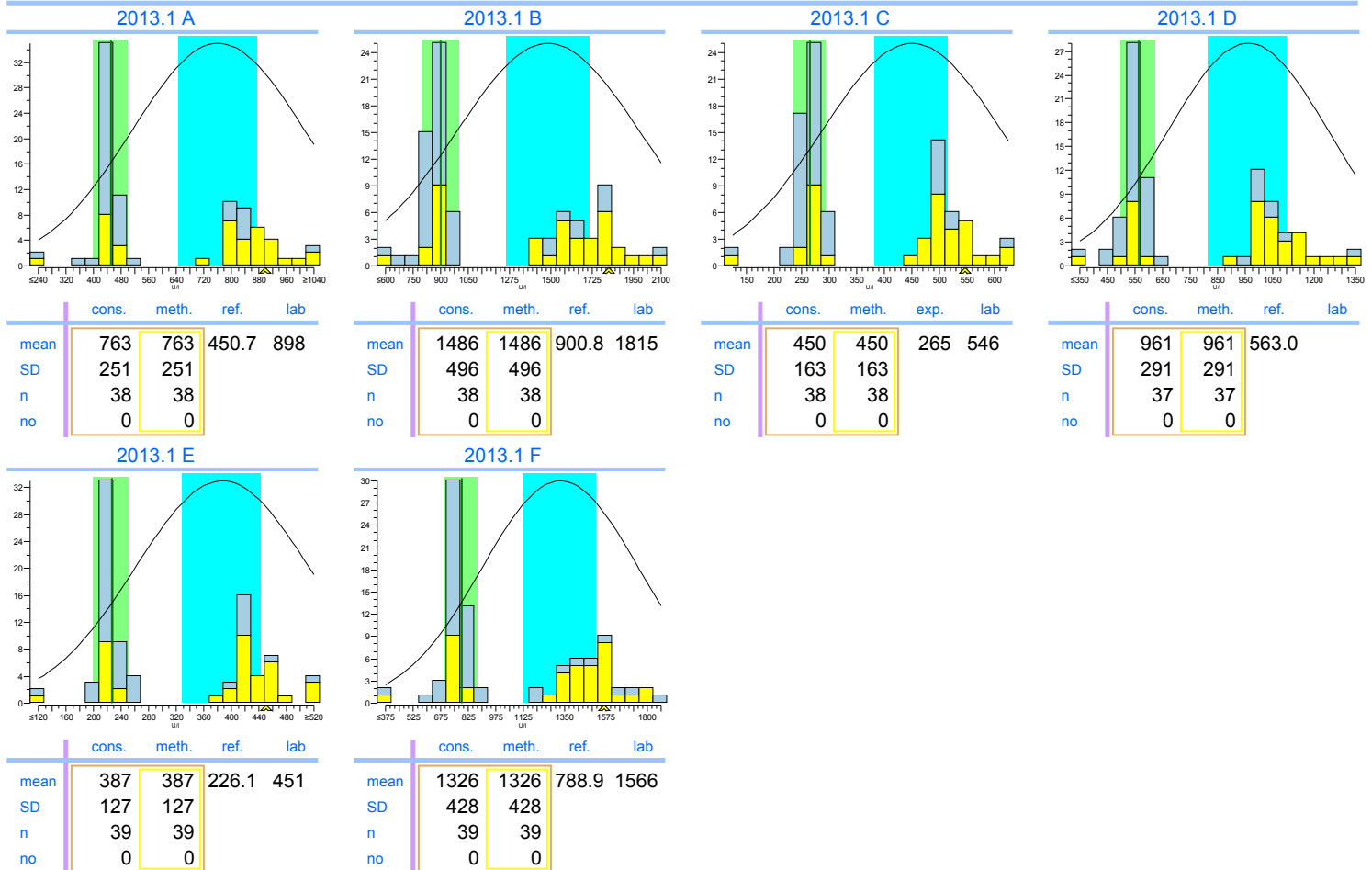
LD

units: U/I



	2013.1	cumulative
Trueness	+100%	+100%
Precision	2.7%	2.7%
Number	5	5
Outliers	0	0
Sigma-TE	-3.0	-3.0
Sigma-SA	-3.0 0	-3.0 0
Score pictogram		
Regression line	$0 + 2.003.x$	$0 + 2.003.x$

Consensus group niet IFCC traceerbaar
Method IFCC non-traceable



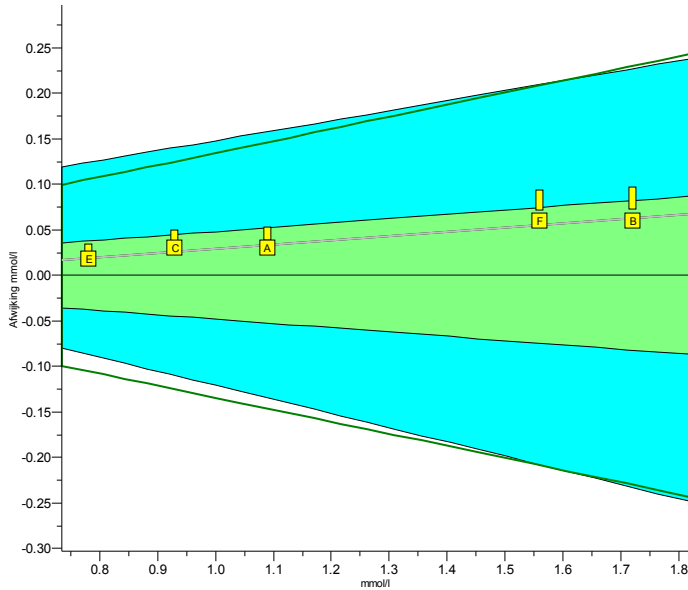
Legend

 IFCC non-traceable IFCC traceable

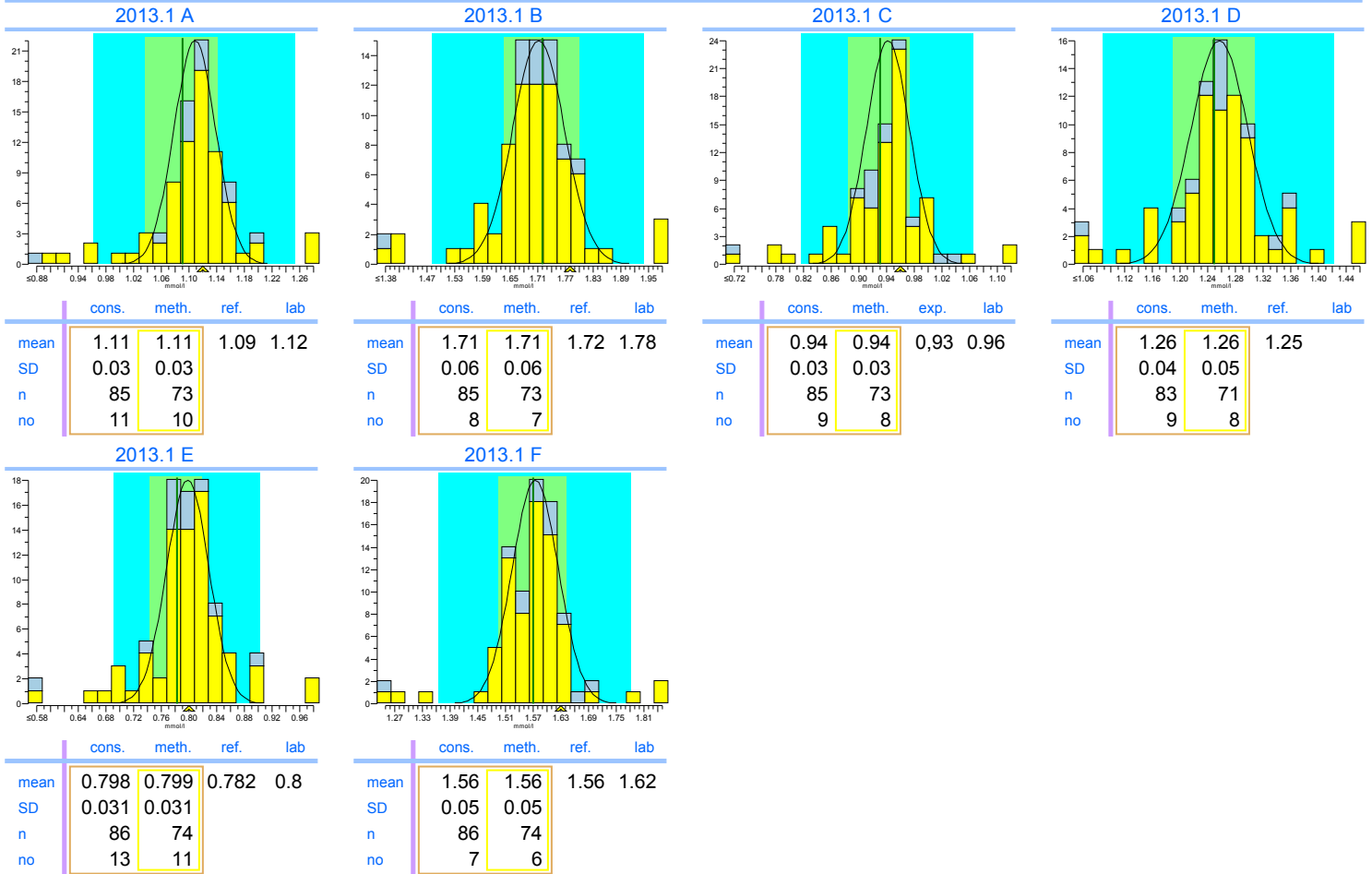
INPUTS 2013.1

Magnesium

units: mmol/l



	2013.1	cumulative
Trueness	+3.3%	+3.3%
Precision	0.57%	0.57%
Number	5	5
Outliers	0	0
Sigma-TE	3.8	3.8
Sigma-SA	6.0 2	6.0 2
Score pictogram		
Regression line	$-0.02 + 1.047 \cdot x$	$-0.02 + 1.047 \cdot x$
Consensus group	Overall	
Method	Colorimetric	



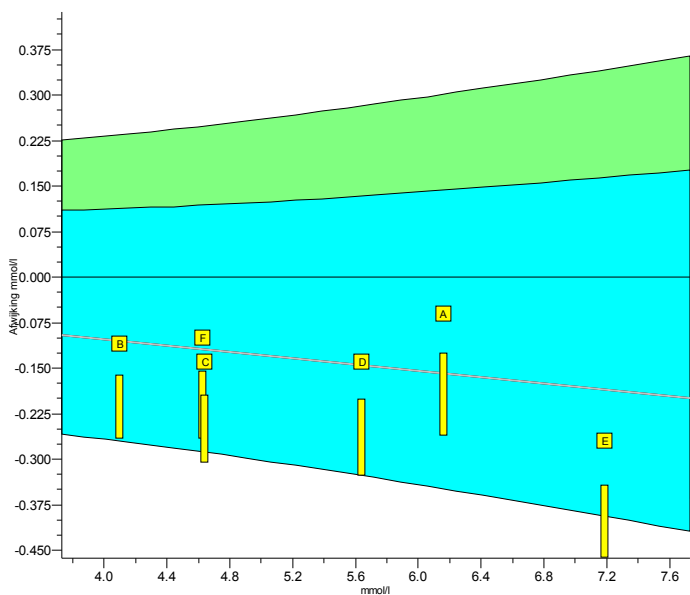
Legend





INPUTS 2013.1

Potassium

units: mmol/l



	2013.1	cumulative
Trueness	-2.5%	-2.5%
Precision	1.2%	1.2%
Number	6	6
Outliers	0	0
Sigma-TE	3.6 ■	3.6 ■
Sigma-SA	2.6	2.6
Score pictogram		
Regression line	$0.00 + 0.974 \cdot x$	$0.00 + 0.974 \cdot x$

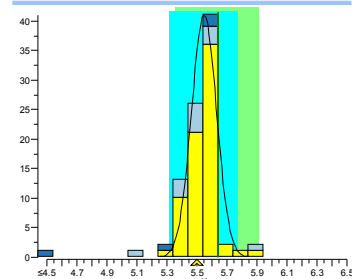
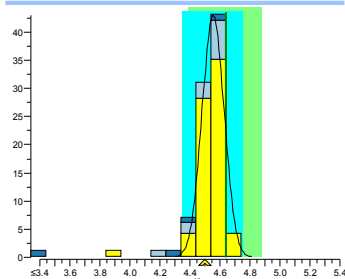
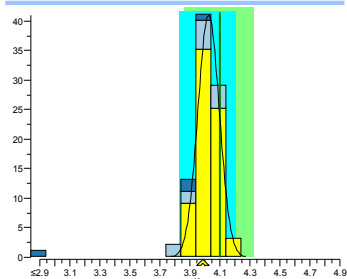
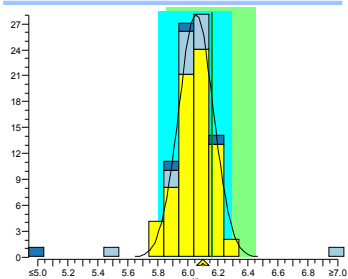
Consensus group ISE verdund/Vlamfotometrie
Method ISE indirect (with predilution)

2013.1 A

2013.1 B

2013.1 C

2013.1 D



	cons.	meth.	ref.	lab
mean	6.05	6.05	6.16	6.1
SD	0.12	0.12		
n	72	72		
no	0	0		

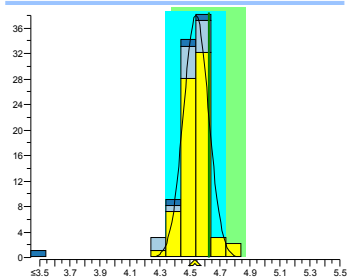
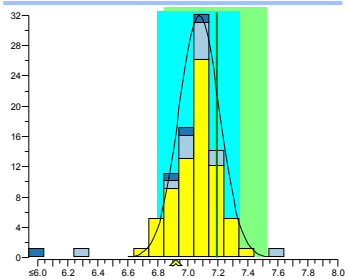
	cons.	meth.	ref.	lab
mean	4.02	4.02	4.10	3.99
SD	0.07	0.07		
n	72	72		
no	0	0		

	cons.	meth.	exp.	lab
mean	4.55	4.55	4.64	4.5
SD	0.07	0.07		
n	72	72		
no	1	1		

	cons.	meth.	ref.	lab
mean	5.55	5.55	5.64	5.5
SD	0.08	0.08		
n	72	72		
no	2	2		

2013.1 E

2013.1 F



	cons.	meth.	ref.	lab
mean	7.08	7.08	7.19	6.92
SD	0.14	0.14		
n	72	72		
no	0	0		

	cons.	meth.	ref.	lab
mean	4.54	4.54	4.63	4.53
SD	0.08	0.08		
n	73	73		
no	2	2		

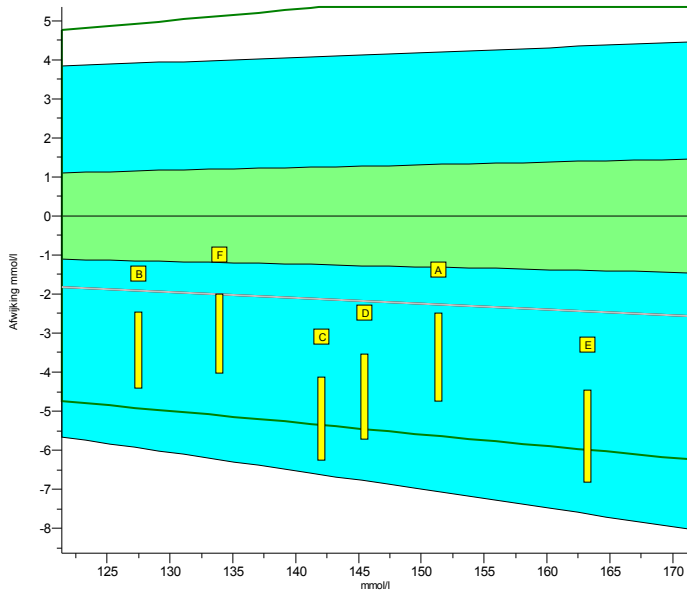
Legend

- ISE indirect (with predilution)
- ISE direct (no predilution)
- Other methods

INPUTS 2013.1

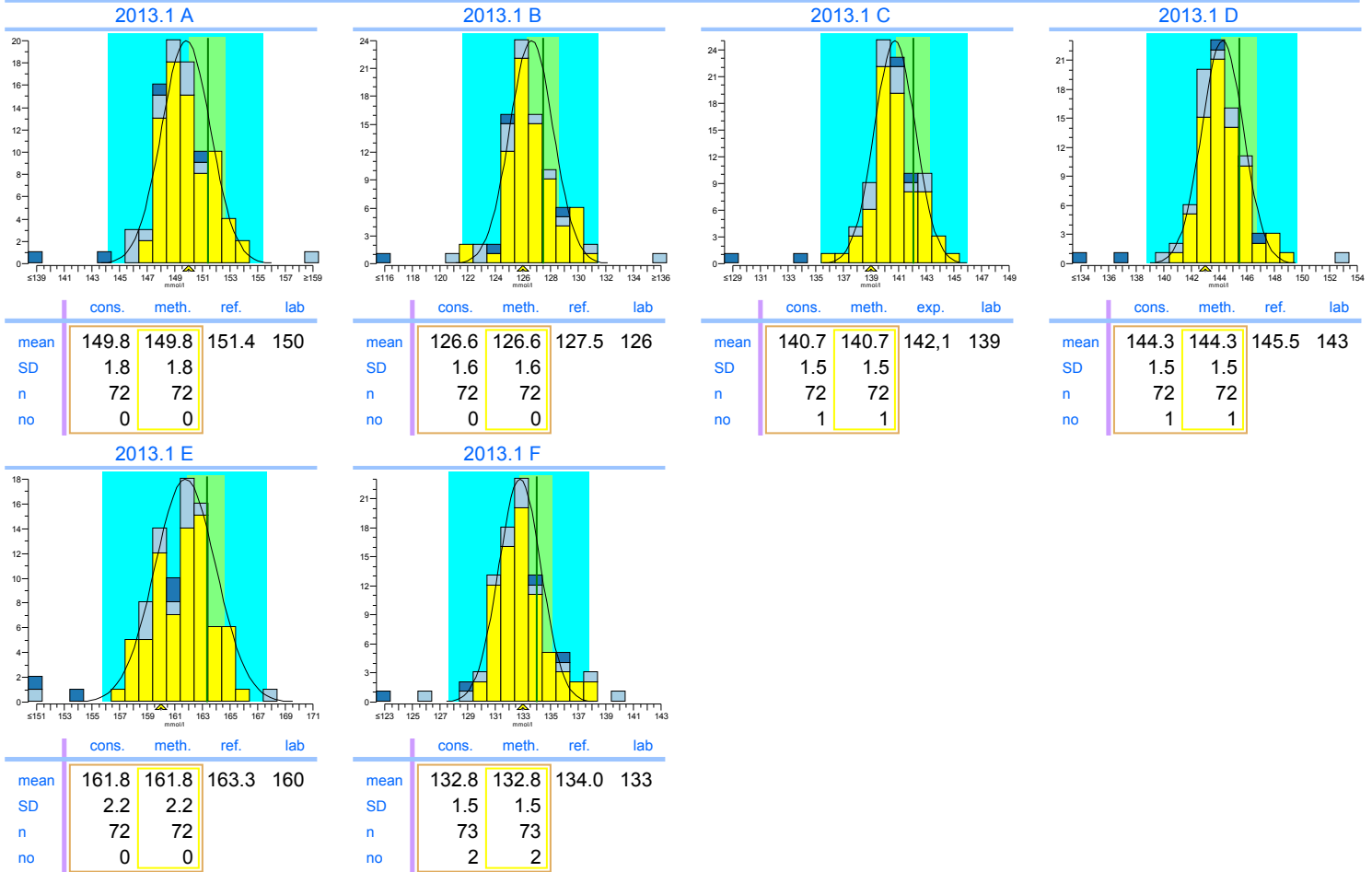
Sodium

units: mmol/l



	2013.1	cumulative
Trueness	-1.5%	-1.5%
Precision	0.61%	0.61%
Number	6	6
Outliers	0	0
Sigma-TE	-0.2	-0.2
Sigma-SA	4.6 2	4.6 2
Score pictogram		
Regression line	$0.0 + 0.985 \cdot x$	$0.0 + 0.985 \cdot x$

Consensus group ISE verdund/Vlamfotometrie
Method ISE indirect (with predilution)



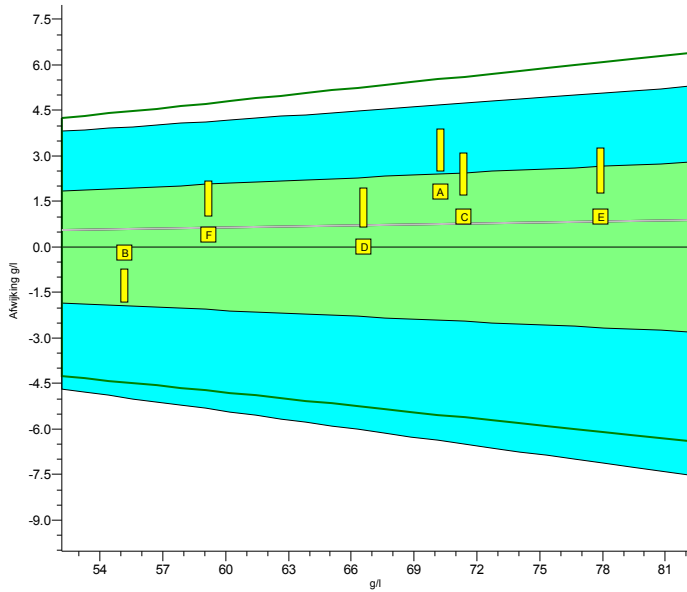
Legend



- ISE indirect (with predilution)
- ISE direct (no predilution)
- Other methods

INPUTS 2013.1

Total Protein

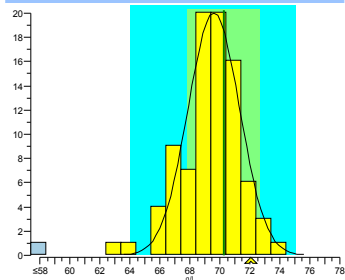
units: g/l



	2013.1	cumulative
Trueness	+1.0%	+1.0%
Precision	0.81%	0.81%
Number	6	6
Outliers	0	0
Sigma-TE	3.8	3.8
Sigma-SA	6.0 2	6.0 2
Score pictogram		
Regression line	$0.0 + 1.011 \cdot x$	$0.0 + 1.011 \cdot x$

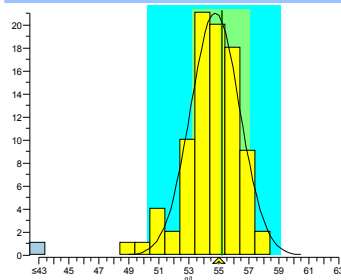
Consensus group Biureet
Method Biurete, automatic

2013.1 A



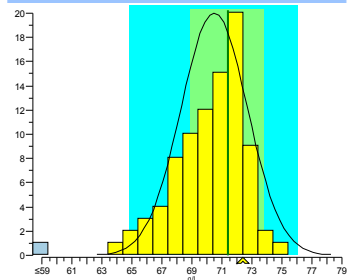
	cons.	meth.	ref.	lab
mean	69.6	69.6	70.3	72.1
SD	1.7	1.7		
n	88	88		
no	2	2		

2013.1 B



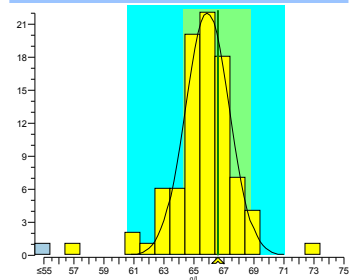
	cons.	meth.	ref.	lab
mean	54.8	54.8	55.2	55
SD	1.6	1.6		
n	88	88		
no	1	1		

2013.1 C



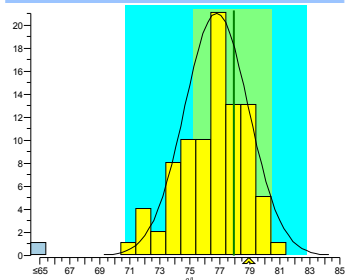
	cons.	meth.	exp.	lab
mean	70.5	70.5	71.4	72.4
SD	2.2	2.2		
n	87	87		
no	0	0		

2013.1 D



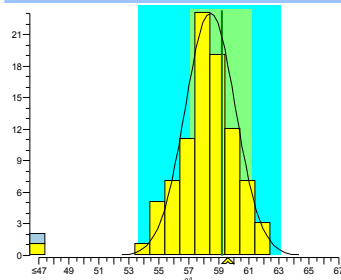
	cons.	meth.	ref.	lab
mean	65.9	65.9	66.6	66.6
SD	1.5	1.5		
n	88	88		
no	4	4		

2013.1 E



	cons.	meth.	ref.	lab
mean	76.8	76.8	77.9	78.9
SD	2.1	2.1		
n	88	88		
no	0	0		

2013.1 F



	cons.	meth.	ref.	lab
mean	58.4	58.4	59.2	59.6
SD	1.7	1.7		
n	89	89		
no	1	1		

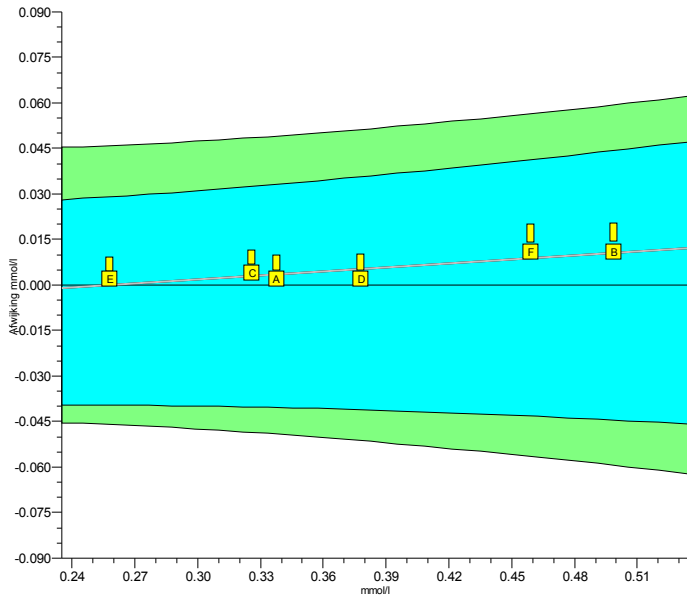
Legend



Biurete, automatic Other methods

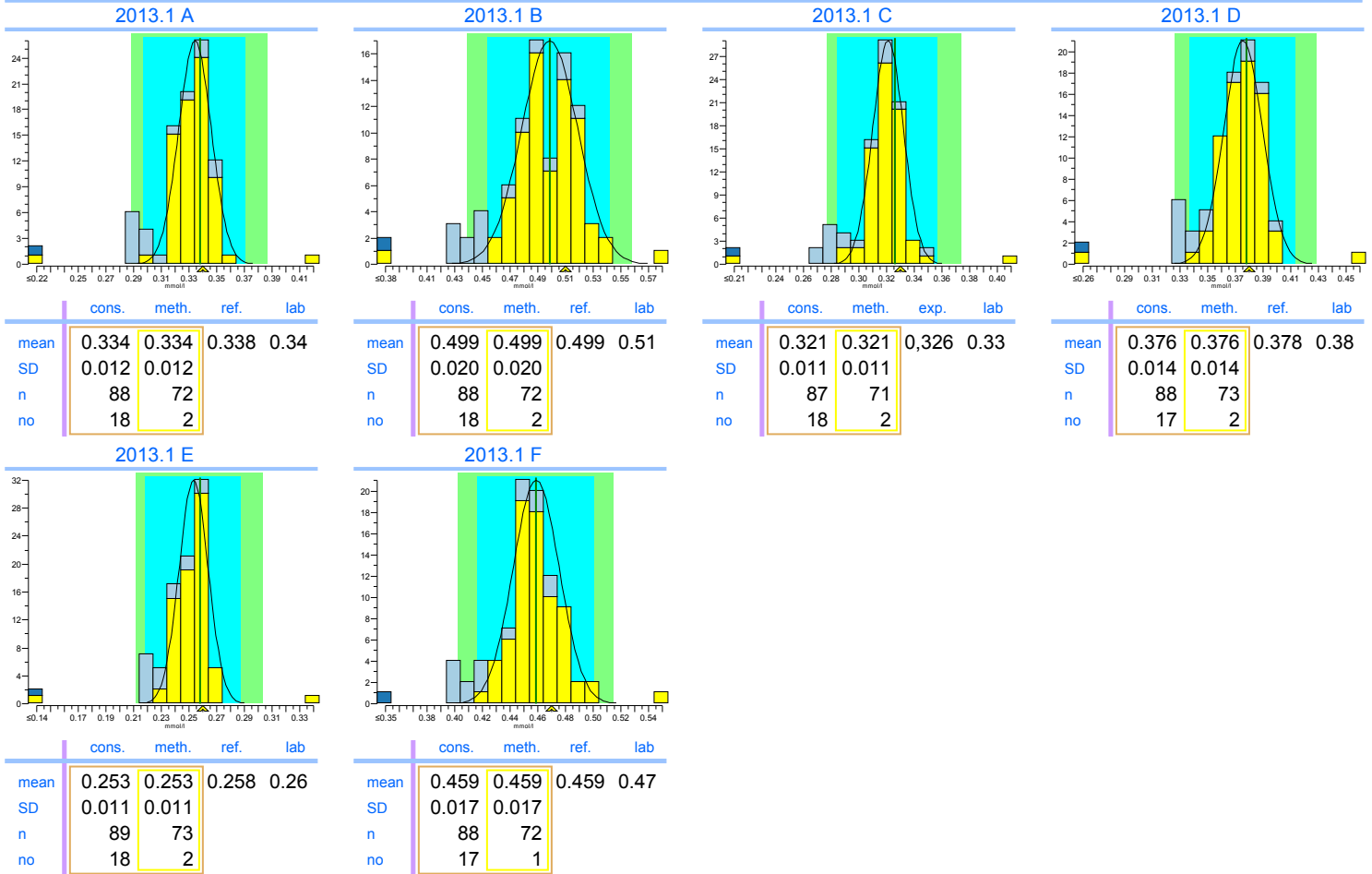
INPUTS 2013.1

Urate

units: mmol/l



	2013.1	cumulative
Trueness	+1.4%	+1.4%
Precision	0.59%	0.59%
Number	6	6
Outliers	0	0
Sigma-TE	6.0 2	6.0 2
Sigma-SA	6.0	6.0
Score pictogram		
Regression line	$-0.011 + 1.044.x$	$-0.011 + 1.044.x$
Consensus group	Colorimetrisch	
Method	Uricase, colorim., automatic	



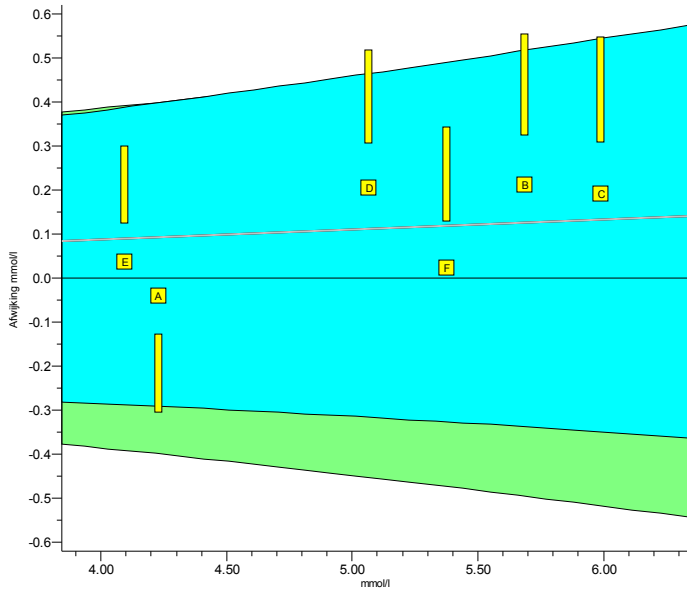
Legend

- Uricase, colorim., automatic
- Uricase, differential UV, automatic
- Overige methoden

INPUTS 2013.1

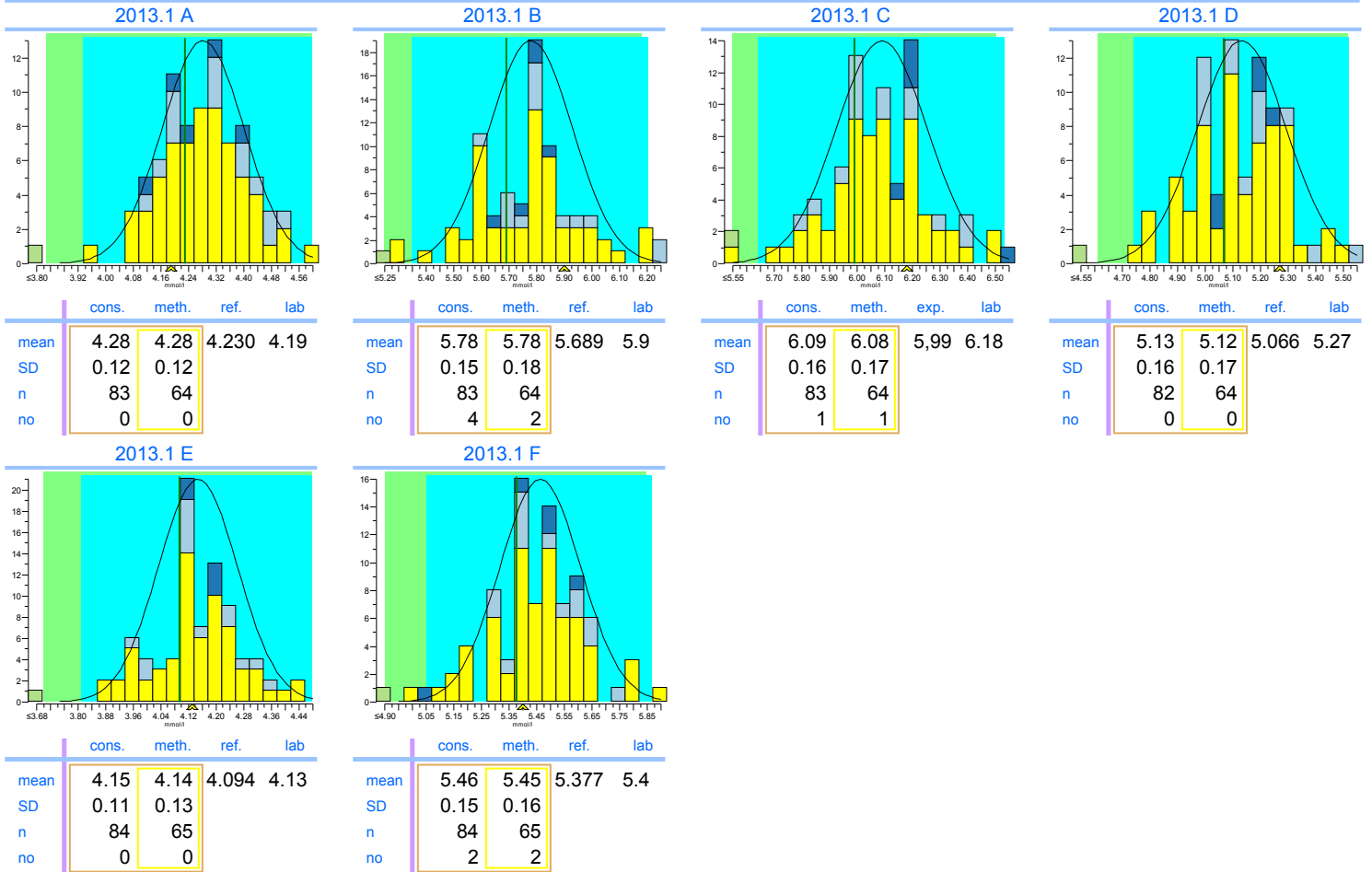
Cholesterol

units: mmol/l



	2013.1	cumulative
Trueness	+2.0%	+2.0%
Precision	1.9%	1.9%
Number	6	6
Outliers	0	0
Sigma-TE	4.9 2	4.9 2
Sigma-SA	4.2	4.2
Score pictogram		
Regression line	<u>0.00 + 1.022.x</u>	<u>0.00 + 1.022.x</u>

Consensus group: Enzymatisch
Method: Enzymatic, automatic, discrete



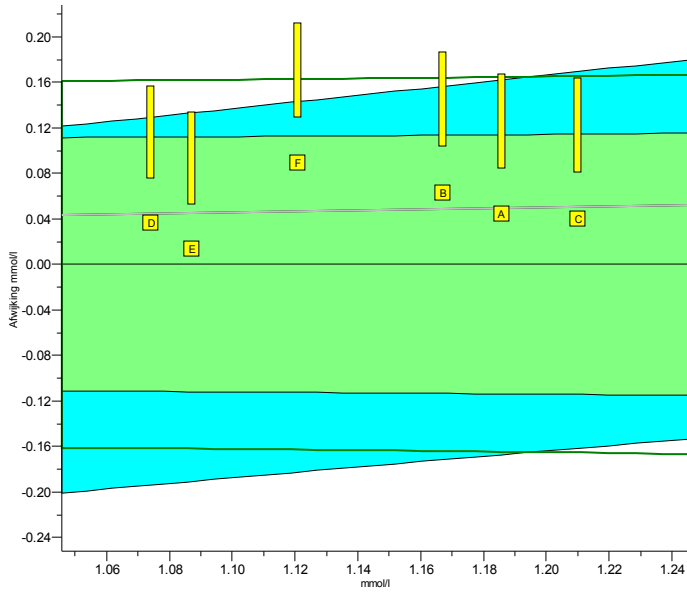
Legend

- Enzymatic, automatic, discrete
- Enzymatic, automatic, kinetic
- Abell-Kendall reference values
- Overige methoden

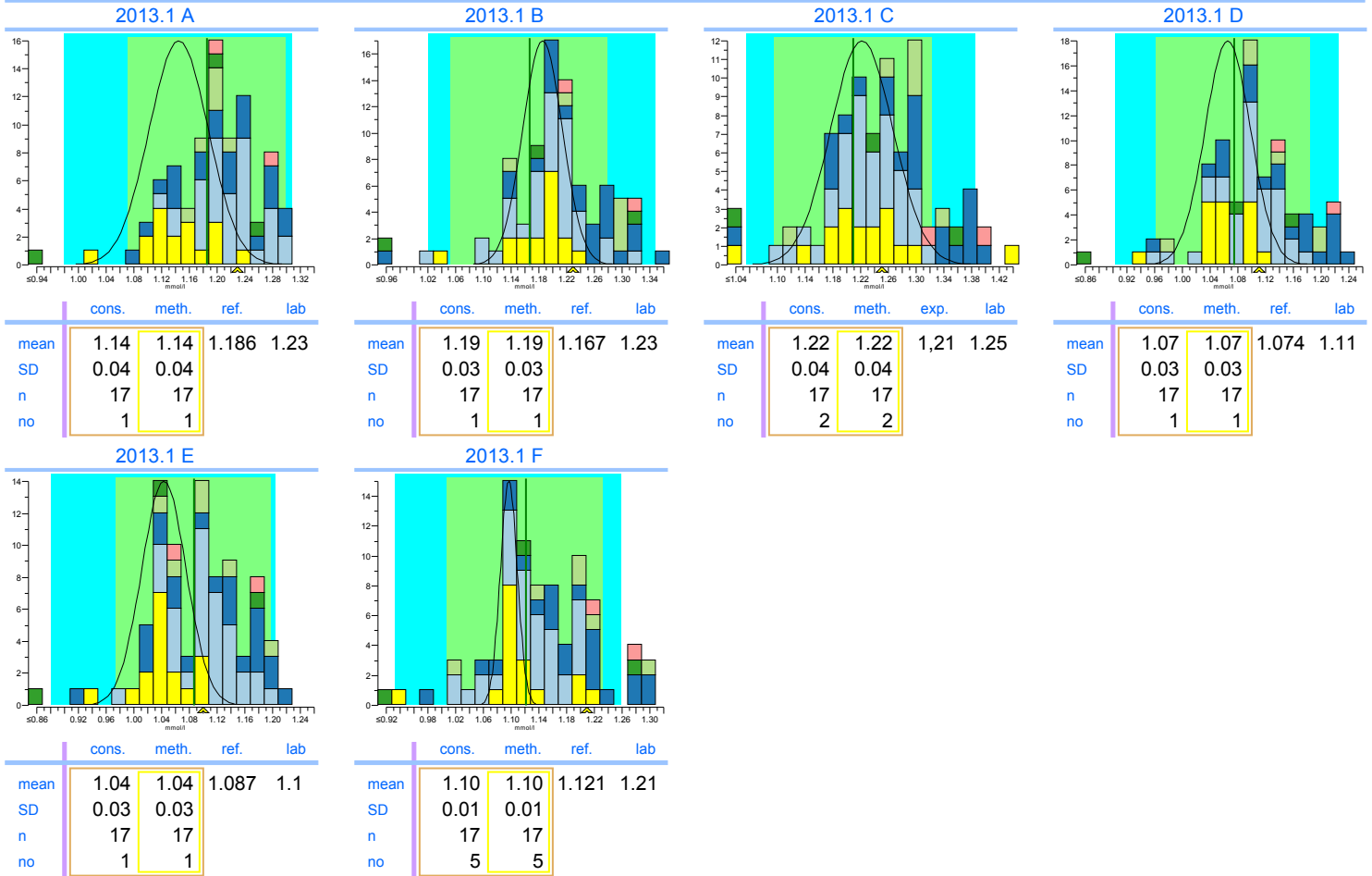
INPUTS 2013.1

HDL-Cholesterol

units: mmol/l



	2013.1	cumulative
Trueness	+4.2%	+4.2%
Precision	2.9%	2.9%
Number	6	6
Outliers	0	0
Sigma-TE	2.8	2.8
Sigma-SA	4.3	4.3
Score pictogram		
Regression line	$0.00 + 1.042.x$	$0.00 + 1.042.x$
Consensus group	Overall	
Method	Immunoinhibition	



Legend

- Immunoinhibition
- PEG modified enzyme, PEGME (Kyowa Medex)
- Accelerator Selective Detergent ("Ultra HDL")
- Catalase method (Denka Seiken)
- Overige methoden
- Precipitation Technique